

Boxes

Box-1

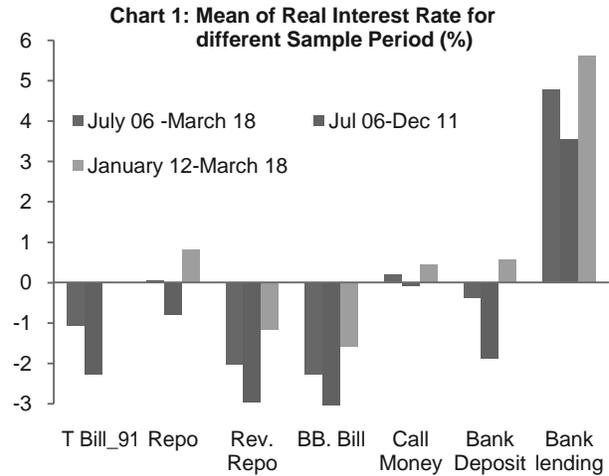
Estimating Neutral Real Interest Rate in Bangladesh*

A neutral real interest rate (NRI) is the real interest rate at which GDP is growing at its trend rate, and inflation is stable. It is also referred to as the equilibrium interest rate. Central banks estimate neutral real interest rate for setting policy rate to preserve price stability. The gap between the current real interest rate and the neutral real interest rate can be thought of as a rough measure of assessing monetary policy stance. NRI is a hypothetical construct, hence one cannot observe it. It provides an indicative benchmark for policy-makers to compare with many other market interest rates in the economy, by informing them whether a given level of the interest rate is likely to be contractionary or expansionary. It may be estimated from observed data and it varies over time due to the change in economy's potential growth rate, financial market depth, the composition of demographic structure, and the risk attitude of the households and firms. There are many methods (structural model, filtering and historical average) that are generally employed to estimate NRI. This box shares some results from a study that estimates NRI for Bangladesh by employing two different methods such as historical average and filtering (Hodrick-Prescott) methods, given their wide usages in the literature.

Table 1: Estimated Neutral Real Interest Rate (%)

Name of Variable	Method-1: Historical Average	Method-2: HP Filter	Average of Two Methods
Repo	0.82	1.07	0.95
Reverse Repo	-1.18	-0.92	-1.05
BB Bill	-1.59	-3.16	-2.38
91-day T. Bill	0.01	-2.91	-1.45
Call Money	0.44	-2.27	-0.91
Bank Deposit	0.59	-1.01	-0.21
Bank Lending	5.56	3.42	4.49
5-Year Bond	2.36	0.6	1.48
10-year Bond	3.28	0.68	1.98

Source: BB staff estimates.



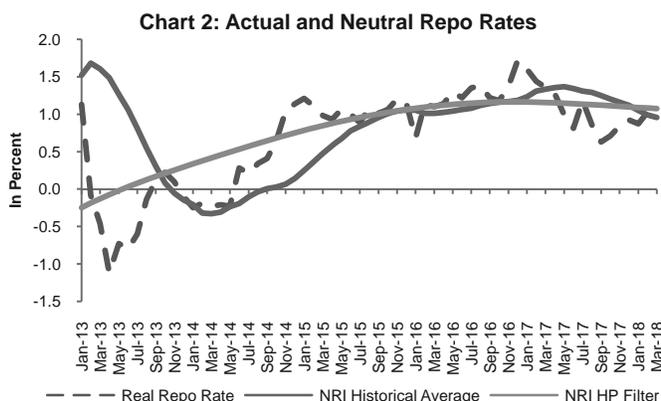
Source: BB staff estimates.

*The team comprising of Md. Habibour Rahman, Mahmud Salahuddin Naser and Md. Ezazul Islam of Chief Economist's Unit. The detailed paper will be published in the forthcoming Monetary Policy Review, 2018. The views expressed in the paper are authors' own and does not reflect those of Bangladesh Bank.

This study computes the average of the real interest rates over a business cycle. The cyclical component of interest rates should average out to zero. The whole sample period (July 2006-March 2018) has been divided into two sub-samples such as July 2006-December 2011 and January 2012- March 2018 on the basis of the negative and positive mean (Chart 1). Mean of the different real interest rates (inflation adjusted) are quite different and diverges across different sample periods. For example, during July 2006-December 2011, mean of repo real interest rate is negative while it is positive for the period of January 2012-March 2018. Considering the sample period of positive real interest rates, an estimated NRI for different real interest rates are calculated¹. An average of the positive real interest rate is used as a proxy of neutral rate. According to the estimates, NRI for different real interest rates is shown in Table 1.

There are cross country differences in what are used as the policy interest rates. Bangladesh Bank considers repo and reverse repo as the policy interest rates. Estimated neutral interest rates for Bangladesh indicate that it varies across methods and time. The NRI for repo shows that it ranges between 0.82 percent and 1.07 percent. Behera et.al (2015)² estimates the neutral interest rate of India for the period Q4 of 2014-15 lies between 1.6 percent and 1.8 using the sample period of 1996-2015.

Chart 2 provides an illustration of how the real repo neutral interest rate has changed for last five years. The results suggest that monetary policy stance has remained accommodative, as reflected in the neutral rate of interest and repo rates. Currently, monetary policy stance is very close to the neutral rate.



The limitation of the estimate is that these methods are suffering from end sample bias. However, research is continually being undertaken to improve the estimation.

¹In India, the Report of the Expert Committee to Review and Strengthen the Monetary Policy Framework (Chairman: Dr Urjit Patel) has recommended adoption of a simple policy rule defined in terms of a real policy rate, which should be positive, on average, when inflation exceeds the inflation target, and the Monetary Policy Committee (MPC) should decide the magnitude by which it may be positive.

²Behera H.K. et. al (2015). Natural Interest Rate: Assessing the stance of India’s monetary policy under uncertainty, RBI working paper, WPS (DEPR), 05/2015.

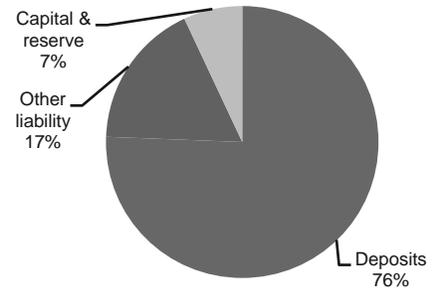
Box-2

Bank Deposit Dynamics in Bangladesh*

This paper tries to understand the relationship between interest rate and bank deposit growth in Bangladesh. As in many developing countries, deposit serves as a prime and stable source of funding for banks operating in Bangladesh and constitutes the majority (around 76 percent) of the bank's liabilities (Chart-1).

In recent years, deposit growth has gradually declined from 18.5 percent in March 2009 to 10.0 percent in March 2018, resulting in a divergence between private sector credit growth and bank deposit growth (Chart-2). The falling tendency of bank deposit growth can be attributed to various factors, including the differential between the deposit rate and the interest rate of alternative savings instruments, i.e. National Savings Certificates (NSCs), term deposits of NBFIs, and earnings from alternative investment opportunities like stock markets. In Bangladesh, average real deposit rate has declined and, during 2010-2016, was lower compared to some of the peer economies (Chart-3).

Chart 1: Banking Sector Liability Structure, December 2017



Total bank deposit growth (including government deposits) and weighted average deposit interest rates are positively related (Chart-4), with a correlation coefficient of 0.47. It should be noted that private sector deposit account for the largest share of deposits (83 percent over the last decade).

Chart 2: Private Credit and Deposit Growth (In percent)

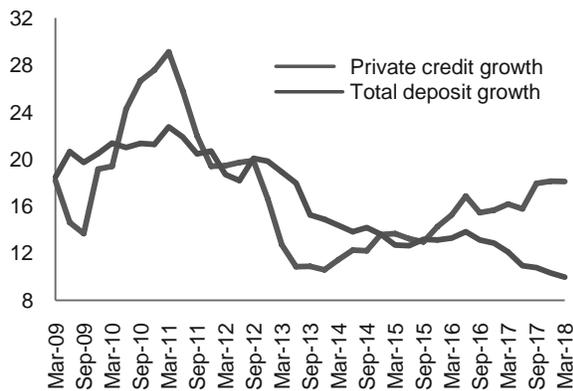
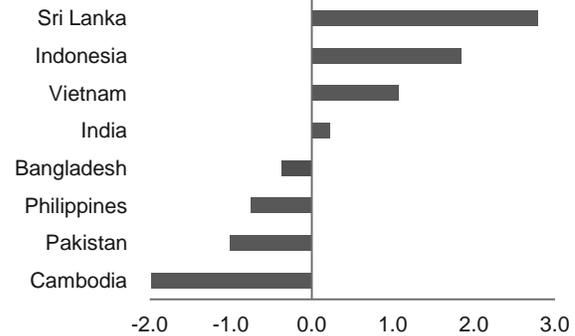


Chart 3: Bank's Real Deposit Rates (In percent; simple average over 2010-2016)



Since government deposit behavior appears to be less sensitive to interest rates, this study focus on the impact of interest rates on private sector deposit. Chart-5 suggests that the growth of fixed deposits (term deposits of banks, which accounts for 43 percent of total deposit) have steadily declined since 2011 while the growth of savings deposits which can be accessed at any time, have moderated. Based on contemporaneous correlation analysis, both fixed and savings deposit growths are closely related to the real

*The team comprising of Md. Rashel Hasan, Raju Ahmed, Mahmud Salahuddin Naser and Md. Ezazul Islam of Chief Economist's Unit. The detailed paper will be published in forthcoming Monetary Policy Review, 2018. The views expressed in the paper are authors' own and does not reflect those of Bangladesh Bank.

interest rates (with correlation coefficients of 0.48 and 0.34 respectively), although the relationship is tighter for fixed deposits, reflecting the long-term maturity structure.

In order to understand the reason behind the falling trends in fixed deposit growth, the study looks at the relationship between the interest rate on fixed deposits (with a maturity of 3 years or more) and the interest rate on NSC with a comparable maturity. Chart 8 shows that as the interest gap widened in favor of NSCs, the net sales of NSCs went up significantly, implying portfolio substitution in favor of NSCs, a risk-free asset.

Chart 4: Bank's Deposit Growth and Interest Rate

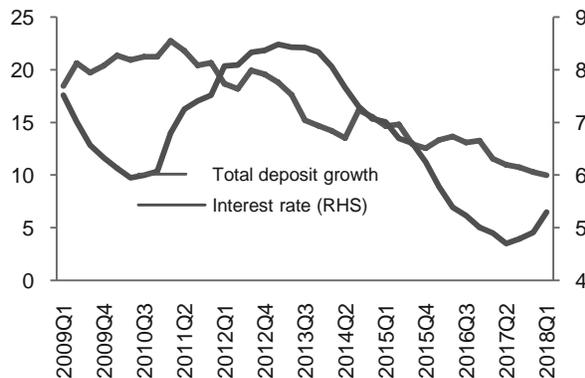


Chart 5: Fixed and Saving Deposit Growth

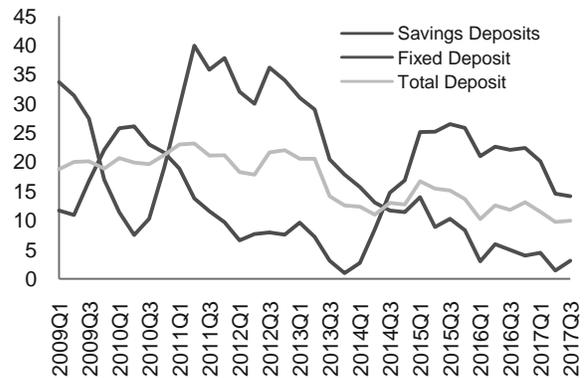


Chart 6: Saving Deposit and Saving Interest Rate

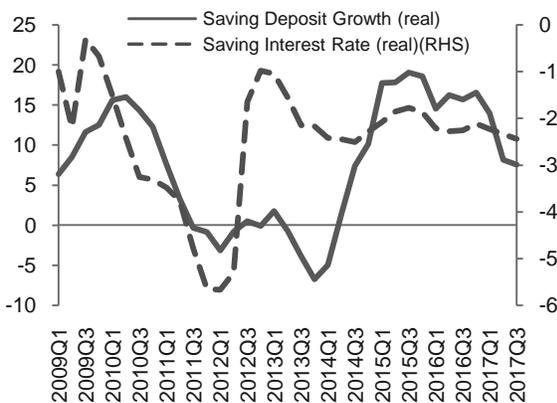


Chart 7: Fixed Deposit and Fixed Interest Rate

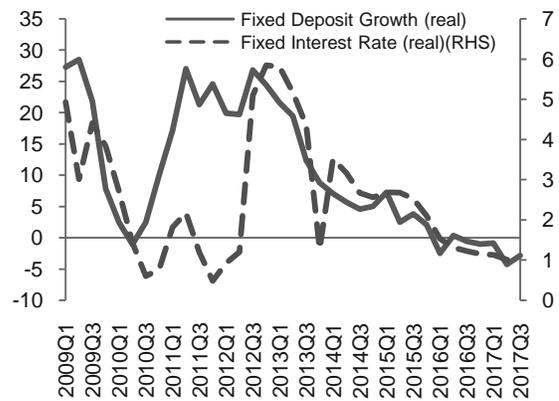


Chart 8: Net Sale of NSC and Interest Rate Gap

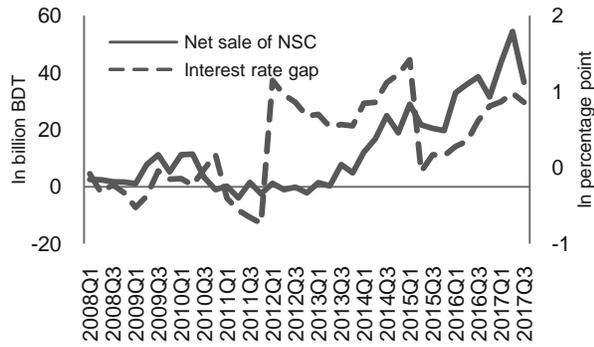
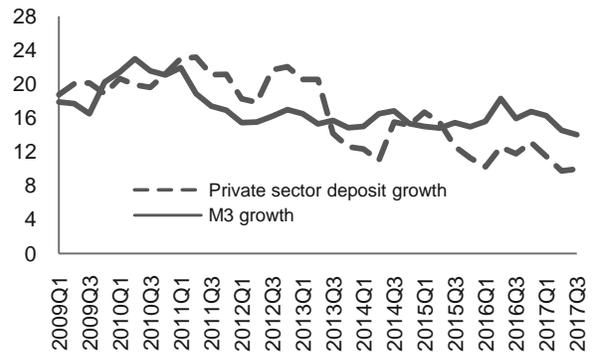


Chart 9: Growth of M3 and Total Deposit (In percent)



Low or negative real rates for a prolonged period have implications for financial deepening and financial inclusion as investor search for higher yields into other assets, including the stock market and real estate. That said, looking at the growth of M3, a broader definition of financial depth that includes deposits from NSCs, financial deepening has continued at a relatively steady pace (Chart-9).

Annexure

Chronology of Major Policy Announcements: January-March, 2018

<p>SMESPD Circular letter no.01 07 January, 2018 Change of policies in operating Islamic Shariah based Refinancing Fund.</p>	<p>Under this fund the participating business entity will be given refinancing facility for one year period which will be renewable until the investment period of principal financing of the project is active and unclassified. The refinancing fund, withdrawn from Bangladesh Bank will be repaid including its profit in quarterly basis regularly.</p>
<p>DMD Circular no. 01/2018 08 January, 2018 Policies regarding Bangladesh Government Treasury Bill/Bond Buy-back.</p>	<p>Like other countries, the issue to make redemption profile homogeneous and to reduce the number of Treasury bond Buy-back of Government securities has been approved by the finance division, finance ministry Government of the peoples' republic of Bangladesh. Bangladesh Bank will accomplish this activity on behalf of the Government of Bangladesh.</p>
<p>FEPD Circular no.01 18 January, 2018 Payments through Asian Clearing Union (ACU).</p>	<p>To facilitate transactions under ACU mechanism, it has been decided that along with 'ACU Dollar', ADs are advised to resume transactions in 'ACU Euro' to settle current account transactions among ACU member countries. Accordingly, 'Japanese Yen (JPY)' has been incorporated as a settlement currency in ACU mechanism.</p>
<p>FEPD Circular no.02 25 January, 2018 Allowing incentive to payment through TT or other medium for exploring new markets (New Market Exploration Assistance).</p>	<p>It has been decided to give incentives against export received from the exported country along with export received from other countries under the new market exploration facility. In case of other countries it should be ensured the business relationship between export destination and export-value payment country.</p>
<p>FID Circular letter no.01 28 January, 2018 Opening of bank account for student under school banking scheme.</p>	<p>With the consent from account holders, accounts opened under school banking scheme will be converted into general accounts when the students (A/C holder) become more than 18 years old. Besides, scheduled banks providing banking services to students through mobile financial services or collect government scholarship/ allowances will take initiatives to open accounts for them under school banking scheme.</p>

<p>FEPD Circular letter no.02 05 February, 2018 Cash incentive for exporting Frozen Shrimp and Other Fish sector.</p>	<p>Cash incentive is applicable against exporting Frozen Shrimp and other Fish prepared through freezing method. This is clarified that as a part of freezing Protective Glaze and materials used will be treated as part and parcel of Frozen Fish.</p>
<p>FEPD Circular no. 03 08 February, 2018 Export subsidy against exporting software, ITES and hardware.</p>	<p>Government decided to provide export subsidy against exporting software, ITES (Information Technology Enabled Services) and hardware to promote country's export trade. This facility will be applicable for the exports of goods and services on board from FY 2017-18.</p>
<p>FEPD Circular no. 04 08 February, 2018 Export subsidy against exporting footwear made of synthetic and fabrics.</p>	<p>Government decided to provide export subsidy against exporting footwear made of synthetic and fabrics to promote country's export trade. This facility will be applicable for the exports of goods and services on board from FY 2017-18.</p>
<p>FEPD Circular no. 05 08 February, 2018 About export subsidy against exporting accumulator battery.</p>	<p>To promote country's export trade, Government decided to provide export subsidy against exporting accumulator battery. This facility will be applicable for the exports of goods and services on board from FY 2017-18.</p>
<p>FEPD Circular no. 07 15 February, 2018 Outward remittance facilities for exporters.</p>	<p>To facilitate export trade in meeting urgent needs, it has been decided that ADs may allow remittance facilities to exporters for bonafide service payments to beneficiary's bank account abroad up to USD 5,000 or equivalent, subject to observance of some instructions.</p>
<p>BRPD Circular no.01 20 February, 2018 About loan Classification and Provisioning.</p>	<p>With a view to promoting growth in the real estate sector through bank's participation in Housing Finance, banks have to maintain 1% General Provision instead of 2% against all unclassified Housing Finance Loans under consumer financing.</p>

<p>BRPD Circular no. 02 25 February, 2018 To prepare loan sanctioning papers in Bangla.</p>	<p>According to Constitution of the Peoples Republic of Bangladesh's Bangla Language Circulation Act, 1987 and to fulfill customers' requirements banks are advised to prepare loan sanctioning papers in Bangla. Besides Bangla loan sanctioning papers may be prepared in English along with Bangla.</p>
<p>FEPD Circular letter no.06 25 March, 2018 Purchase of Wage-Earner Development Bonds out of Taka fund against inward remittance sent by wage earners.</p>	<p>Taka fund credited in non-resident Taka account of Bangladesh nationals residing abroad or in resident Taka accounts of their beneficiaries against inward remittances through normal banking channel or authorized exchange house channel is eligible to purchase Wage Earner development Bond (WEDB) in accordance with the instructions of Wage-Earner Development Bond Rules, 1981.</p>

Bangladesh Bank welcomes suggestions and comments for improvement of the contents and form of this publication. Comments and suggestions may be sent to:
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